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## UNITED STATES DEPARTMENT OF AGRICULTURE,

DIVISION OF PUBLICATIONS,

*Washington, D. C., February 29, 1896.*

NOTE.—The Department has no list to whom all its publications are sent. The Monthly List of Publications will be mailed to all applicants. For the maps and bulletins of the Weather Bureau requests and remittances should be directed to the Chief of that Bureau.

The publications mentioned below to which a price is attached (with the exception of those issued by the Weather Bureau) may be obtained of the Superintendent of Documents, Union Building, Washington, D. C., upon the payment of the price thereof as fixed by him in accordance with the provisions of sections 61 and 67 of the Act providing for the public printing and binding, and the distribution of public documents, approved January 12, 1895, and all remittances should be made to him and not to the Department of Agriculture; such remittances should be made by postal note and not by private check or postage stamps.

Applications for all other publications should be addressed to the Secretary of Agriculture, Washington, D. C.

Please advise the Department of any change of address.

The Superintendent of Documents is not permitted to sell more than one copy of any public document to the same person.

## MONTHLY LIST OF PUBLICATIONS.

[February, 1896.]

Extension of Markets for American Feed Stuffs. Pp. 8. (Circular No. 7, Section of Foreign Markets.)

Comments on the preparation of feed stuffs for foreign markets; suggests several formulas for feed cakes; gives exports of oil cake for 1893, 1894, and 1895, and the analysis of Black Sea and Danubian maize.

Methods of Analysis Adopted by the Association of Official Agricultural Chemists, September 5, 6, and 7, 1895. Edited by Harvey W. Wiley, Secretary, with the Collaboration of L. L. Van Slyke and W. D. Bigelow, Editorial Committee. Pp. 84, figs. 4. (Bulletin No. 46, Division of Chemistry.) Price 5 cents.

List of Publications of the U. S. Department of Agriculture from 1841 to June 30, 1895, inclusive. Pp. 76. (Bulletin No. 9, Library.) Price 10 cents.

This is simply a check list and is suitable for official use and libraries only. Comparatively few of the publications mentioned are available for distribution.

Experiment Station Record, Vol. VII, No. 5. Pp. v, 343-434. Price 5 cents.

This is a serial publication giving a review of the work in agricultural science of the world and of the experiment stations of the United States in particular.



Accessions to the Department Library. October-December, 1895. Pp. 14. (Bulletin No. 10, Library.) Price 5 cents.

Cornstalk Disease, and Rabies in Cattle. An investigation into the nature, cause, and means of preventing the Cornstalk Disease (*Toxæmia maidis*) of Cattle. By Veranus A. Moore, B. S., M. D.—A disease in cattle not distinguishable from Rabies. By Veranus A. Moore, B. S., M. D.—Chemical examination of cornstalks presumably the cause of cornstalk disease. By E. A. de Schweinitz, M. D., Ph.D. (Bulletin No. 10, Bureau of Animal Industry.) Price 10 cents.

Meats; Composition and Cooking. By Chas. D. Woods, Office of Experiment Stations. Pp. 29, figs. 4, charts 4. (Farmers' Bulletin No. 34, Office of Experiment Stations.)

Synopsis of Crop Report for December, 1895. No. 133. Pp. 4.

Monthly Crop Report. December, 1895. To which are appended the Transportation Rates as Required by Law, together with Certain Railroad and Transportation Statistics. Pp. 36. Price 5 cents.

•Crop Report for December, 1895 (without Transportation Rates). Pp. 16.

Economic Designing of Timber Trestle Bridges, by A. L. Johnson, C. E. Pp. 57, figs. 7. (Bulletin No. 12, Division of Forestry.) Price 5 cents.

Mosquitoes and Fleas. Pp. 4. (Circular No. 13, second series, Division of Entomology.)

The Determination of the Relative Quantities of Aqueous Vapor in the Atmosphere by Means of the Absorption Lines of the Spectrum. By L. E. Jewell, under the general supervision of Prof. H. A. Rowland, of Johns Hopkins University. Pp. 12, fig. 1. (Bulletin No. 16, Weather Bureau.) Price 15 cents.

Letter from the Secretary of Agriculture, transmitting a detailed statement of the Expenditures of all appropriations for the Department of Agriculture for the fiscal year ended June 30, 1895, including supplemental account to date. Pp. 189. (Document No. 25, 54th Cong., 1st sess.)

Facts and Figures Regarding Our Forest Resources Briefly Stated. Pp. 8. (Circular No. 11, Division of Forestry.)

Statistics of State Weather Services. By Oliver L. Fassig, Librarian. Pp. 12. (Weather Bureau.) Price 5 cents.

Monthly Weather Review. September, 1895. No. 9. Pp. 325-364, charts 6. Price 10 cents.

Charts of the Weather Bureau. (Size 19 by 24 inches.)

Weather Crop Bulletin (series of 1896), reporting temperature and rainfalls with special reference to their effect on crops. (No. 1, for the month of January, 1896.)

Daily Weather Map, showing weather conditions throughout the United States and giving forecasts of probable changes.

Snow charts for February 3, 10, 17, and 24, 1896.

Cold Wave Bulletin No. 1 of 1896. Cold wave of January 2 to 5, 1896.

Storm Bulletin No. 1 of 1896. Coast storm of February 5 to 7, 1896.



*Reprints.*

Barnyard Manure. By W. H. Beal, of the Office of Experiment Stations. Pp. 32, figs. 7. (Farmers' Bulletin No. 21, Office of Experiment Stations.)

Foods: Nutritive Value and Cost. By W. O. Atwater, Professor of Chemistry in Wesleyan University. Pp. 32, charts 2. (Farmers' Bulletin No. 23, Office of Experiment Stations.)

Alfalfa, or Lucern. By Jared G. Smith, Assistant Agrostologist. Pp. 23, figs. 3. (Farmers' Bulletin No. 31, Division of Agrostology.)

Souring of Milk and Other Changes in Milk Products. Pp. 23. (Farmers' Bulletin No. 29, Office of Experiment Stations.)

Peach Growing for Market. By Erwin F. Smith, Division of Vegetable Physiology and Pathology. Pp. 23, figs. 21. (Farmers' Bulletin No. 33, Division of Vegetable Physiology and Pathology.)

The Feeding of Farm Animals. By E. W. Allen, Ph.D., Assistant Director of Office of Experiment Stations. Pp. 32. (Farmers' Bulletin No. 22, Office of Experiment Stations.)

Hog Cholera and Swine Plague. By Dr. D. E. Salmon, Chief of the Bureau of Animal Industry. Pp. 16. (Farmers' Bulletin No. 24, Bureau of Animal Industry.)

Sweet Potatoes: Culture and Uses. By J. F. Duggar, of the Office of Experiment Stations. Pp. 30, figs. 4. (Farmers' Bulletin No. 26, Office of Experiment Stations.)

American Dried Apples in the German Empire. Pp. 4. (Circular No. 2, Section of Foreign Markets.)

Investigations Concerning Infectious Diseases Among Poultry. By Theobald Smith and Veranus A. Moore. Pp. 90, pls. 6. (Bulletin No. 8, Bureau of Animal Industry.) Price 15 cents.

This bulletin is purely technical in character and is not practicable for general distribution.

An Example for American Farmers and Dairymen. Pp. 4. (Circular No. 4, Section of Foreign Markets.)



# United States Department of Agriculture,

## DIVISION OF PUBLICATIONS.

*Washington, D. C., March 31, 1896.*

### MONTHLY LIST OF PUBLICATIONS.

[March, 1896.]

(See notes regarding Department publications on page 4.)

**Nut Culture in the United States, Embracing Native and Introduced Species.** By W. P. Corsa, of the Division of Pomology. Pp. 144, pls. 16 (2 colored), figs. 2. Price 30 cents. (Edition exhausted.)

This report treats of nut culture in all its phases, and is based upon replies by growers in all parts of the country to a circular of inquiry sent out in 1890. These replies were tabulated and compiled, and are included in this report.

**Statistics of the Dairy.** Compiled from the United States Census of 1890, and from other reliable sources, with explanatory notes. By Henry E. Alvord, C. E., Chief of the Dairy Division. Pp. 53, diags. 5, map 1. (Bulletin No. 1, Dairy Division of Bureau of Animal Industry.) Price 5 cents.

**The Grass and Grain Joint-worm Flies and Their Allies: A Consideration of Some North American Phytophagic Eurytominae.** By L. O. Howard, Entomologist. Pp. 24, figs. 10. (Technical Bulletin No. 2, Division of Entomology.) Price 5 cents.

This bulletin is intended especially for working entomologists. "The Eurytominae here considered work in the stems of grasses and small grains and in the seeds of grapes."

**Arbor Day: Its History and Observance.** By N. H. Egleston. Pp. 80, figs. 28.

It is the aim of this bulletin to give an authentic account of the origin, history, and uses of Arbor Day—now observed throughout our country and also in other lands—which has been regarded with interest by the Department ever since its observance began, and to offer such suggestions and helps as may serve to increase its usefulness.

**The San Jose Scale: Its Occurrences in the United States, with a full account of its life history and the remedies to be used against it.** By L. O. Howard and C. L. Marlatt. Pp. 80, frontispiece, figs. 8. (Bulletin No. 3, new series, Division of Entomology.) Price 10 cents.

**The Jack Rabbits of the United States.** By T. S. Palmer, M. D., Assistant Chief of Division. Pp. 84, frontispiece, pls. 6, figs. 2. (Bulletin No. 8, Division of Ornithology and Mammalogy.) Price 10 cents.

The objects of this bulletin are: (1) To give a general account of the distribution and habits of the various species found in the United States; (2) to show the methods which have been used to exterminate the animal, and to protect crops from their depredations; and (3) to bring together facts and figures concerning the economic uses of rabbits in general for the purpose of indicating how our native species may be more generally utilized.



Experiment Station Record, Vol. VI, No. 12. Pp. 1033-1134, xii.  
Price 10 cents.

This issue shows the number and character of abstracts published in Vol. VI, also a complete topical index to the volume.

Tenth and Eleventh Annual Reports of the Bureau of Animal Industry, for the Years 1893 and 1894. Pp. 127.

While this report contains an account of the more important operations of the Bureau of Animal Industry for the years 1893 and 1894, the scientific investigations are not recorded herein, as the results of these have already been published in the bulletins which have been issued from time to time as material became available. The book contains, besides the transactions of the Bureau, several papers of great interest and importance to agriculture and commerce.

This report is published by Congress, and the larger part of the edition is distributed by Senators and Representatives.

Cotton Seed and Its Products. Pp. 16. (Farmers' Bulletin No. 36, Office of Experiment Stations.)

Potato Culture. By J. F. Duggar, of the Office of Experiment Stations. Pp. 23, figs. 2. (Farmers' Bulletin No. 35, Office of Experiment Stations.)

The Mexican Cotton Boll Weevil. By L. O. Howard, Entomologist. Pp. 8, figs. 5. (Circular No. 14—revision, of No. 6—of Division of Entomology.)

The object of the present circular is to lay before cotton planters the results of the investigations of the Department concerning this weevil.

Saltbushes. By Jared G. Smith, Assistant Agrostologist. Pp. 4, figs. 3. (Circular No. 3, Division of Agrostology.)

This circular describes in a popular manner the Australian and the American saltbushes, their use as forage plants, with general considerations of their value.

Synopsis of Crop Report for March, 1896. No. 135. Pp. 4.

Gives distribution and quality of the corn crops of 1895, disposal of the corn crop of 1895, distribution and disposal of the wheat crop of 1895, and the wheat crop of the world.

Summary of Cotton Report for March, 1896. No. 135. Pp. 4.

Prices and Numbers of Farm Animals, No. 134. Pp. 8.

The Direct Transmission of Infectious Entero-hepatitis in Turkeys. By Veranus A. Moore, Chief of Division of Animal Pathology. Pp. 8, figs. 7. (Circular No. 5, Bureau of Animal Industry.)

This circular discusses the nature of the disease (sometimes called blackhead) gives the details of an experiment conducted by the Bureau of Animal Industry, and offers suggestions for prevention.

Black Quarter. By D. E. Salmon, D. V. M., Chief of the Bureau of Animal Industry. Pp. 4. (Circular No. 6, Bureau of Animal Industry.)

This circular is a reprint of pages 84-87 of the Tenth and Eleventh Annual Reports of the Bureau of Animal Industry.

Actinomycosis, or Lumpy Jaw. By D. E. Salmon, D. V. M., Chief of the Bureau of Animal Industry. Pp. 4. (Circular No. 7, Bureau of Animal Industry.)

This circular is a reprint of pages 88-91 of the Tenth and Eleventh Annual Reports of the Bureau of Animal Industry.



Injuries to Cattle from Swallowing Pointed Objects. By Theobald Smith, M. D., and Charles F. Dawson, M. D., D. V. M. Pp. 4. (Circular No. 8, Bureau of Animal Industry.)

This circular is a reprint of pages 78-81 of the Tenth and Eleventh Annual Reports of the Bureau of Animal Industry.

General Work Against Insects Which Defoliate Shade Trees in Cities and Towns. By L. O. Howard, Entomologist. Pp. 4. (Circular No. 15, Division of Entomology.)

The Manchester District of England as a Market for American Products. Pp. 8, fig. 1. (Circular No. 8, Section of Foreign Markets.)

Terms of Sale of the Card Index of Agricultural Literature. Pp. 2. (Leaflet issued by Office of Experiment Stations.)

The index was begun with the American Station literature for the year 1890. The manuscript for the index of the earlier station literature has been prepared. Each card contains the title of an article, the name of its author, a reference to the publication in which it appeared and to the Experiment Station Record, and a condensed statement of its contents.

Work and Expenditures of Agricultural Experiment Stations. By A. C. True, Director. Pp. 4. (Circular No. 29, Office of Experiment Stations.)

In connection with examinations of the work and expenditures of the agricultural experiment stations established in accordance with the act of Congress of March 2, 1887, under authority given to the Secretary of Agriculture by Congress, questions have arisen which have seemed to make it advisable to formulate the views of this Department on certain matters affecting the management of the stations under that act. The statements given in this circular have therefore been prepared to cover the points which seem to require special attention.

Canaigre. By A. C. True, Director. Pp. 4, fig. 1. (Circular No. 25, Office of Experiment Stations.)

Gives a description of the plant, tannin content, culture, preparation for market, supply and value.

Price List of Publications. Pp. 15. (Division of Publications.)

This list includes all those publications available for distribution to which a price is affixed, and which have been turned over to the Superintendent of Documents for sale according to law.

Climate and Health. A Summary of Statistics for the Four Weeks Ended December 28, 1895. Vol. I, No. 6. Pp. 147-174, charts 12. [Quarto.] Price 10 cents.

"Climate and Health is intended to be a repertory for statistical and other information appertaining to climatology and its relations to hygiene, and from which persons interested in the subject of the influence of climate and weather upon health may obtain data for making comparisons to determine the therapeutic and hygienic merits of different climates, for the prosecution of original researches, and whatever other uses and purposes to which they may find the information applicable."

Monthly Weather Review, Vol. XXIII, No. 10, October, 1895. Pp. 365-407, charts 6. Price 10 cents.

Charts of the Weather Bureau. (Size 19 by 24 inches.)

Climate and Crop Bulletin (series of 1896), reporting temperature and rain-falls with special reference to their effect on crops. (No. 2, for the month of February, 1896.)

Daily Weather Map, showing weather conditions throughout the United States and giving forecasts of probable changes.



Snow charts for March 2, 9, 16, 23, and 30, 1896.

Storm Bulletin No. 2 of 1896. Coast storm of March 10 to 12.

Storm Bulletin No. 3 of 1896. Inland and coast storm of March 16 to 20.

### NOTES REGARDING DEPARTMENT PUBLICATIONS.

The publications of the United States Department of Agriculture are of three classes: (1) serial publications, (2) scientific and technical reports, and (3) popular bulletins.

The first two classes are issued in limited editions and are not intended for general distribution, being particularly designed for scientific students and for libraries and institutions of learning. They are distributed free only to persons cooperating with or rendering the Department some service. Sample copies will be sent if requested, but miscellaneous applicants to receive the same regularly or for occasional copies must apply to the Superintendent of Documents, Union Building, Washington, D. C., to whom all publications not needed for official use, except circulars and bulletins printed by law for free distribution, are turned over in accordance with the following provision of the act providing for the public printing and binding and distribution of public documents, viz :

SEC. 67. All documents at present remaining in charge of the several Executive Departments, bureaus, and offices of the Government not required for official use shall be delivered to the Superintendent of Documents, and hereafter all public documents accumulating in said Departments, bureaus, and offices not needed for official use shall be annually turned over to the Superintendent of Documents for distribution or sale.

The Farmers' Bulletins treat in a practical manner of subjects of particular interest to farmers, and are issued with a view to the widest possible circulation. These bulletins and circulars of information are free. All applications should be addressed to the Secretary of Agriculture, stating both the **number and title** of the publication desired.

The Department has no list to whom all publications are sent; the variety of the subjects treated naturally restricts the distribution of most of them to the sections of country to which they are specially suitable and to specialists. The Monthly List of Publications, issued the first of each month, will be mailed to all who apply for it. In it the titles of the publications are given with a note explanatory of the character of each, thus enabling the reader to make intelligent application for such bulletins and reports as are certain to be of interest to him.

The Department can not undertake to furnish complete sets of either Farmers' Bulletins or other publications.

For the maps and bulletins of the Weather Bureau requests and remittances should be directed to the Chief of that Bureau. For publications mentioned in the Monthly List preceding **to which a price is attached** (with the exception of those issued by the Weather Bureau) application must be made to the Superintendent of Documents, Union Building, Washington, D. C., accompanied by the price thereof as fixed by him in accordance with the provisions of sections 61 and 67 of the act providing for the public printing and binding, and the distribution of public documents, approved January 12, 1895, and all remittances should be made to him and **not** to the Department of Agriculture; such remittances should be made by postal note and not by private check or postage stamps. Applications for all other publications should be addressed to the Secretary of Agriculture, Washington, D. C.

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Congress has recently ordered a reprint of 75,000 copies of the Special Report on Diseases of the Horse, and 60,000 copies of the Special Report on Diseases of Cattle and on Cattle Feeding, but no part of the edition of either publication is at the disposal of the Department. All applications should, therefore, be addressed to Representatives in Congress or to Senators, and **not** to the Department of Agriculture.

The Special Report on Nut Culture, mentioned in the accompanying list, exceeds 100 pages in size and the edition is therefore by law limited to 1,000 copies. This number will be insufficient for official use, and copies can be distributed only to persons who rendered assistance in its preparation. It is possible that a reprint will be ordered during the next fiscal year, and in this event further distribution may be made.



# United States Department of Agriculture,

## DIVISION OF PUBLICATIONS.

*Washington, D. C., April 30, 1896.*

### MONTHLY LIST OF PUBLICATIONS.

[April, 1896.]

(See appended notes regarding Department publications.)

Contributions from the U. S. National Herbarium, Vol. III, No. 7. Preliminary Revision of the North American Species of Echinocactus, Cereus, and Opuntia. By John M. Coulter. Pp. iii, 355-462, iv. Price 10 cents.

Organization Lists of the Agricultural Experiment Stations and Institutions with Courses in Agriculture in the United States. January, 1896. Pp. 93. (Bulletin No. 27, Office of Experiment Stations.) Price 5 cents.

Food and Diet. By Prof. W. O. Atwater. (Charts 26 by 40 inches. From the Office of Experiment Stations.)

Chart 1.—Nutrients of Food and Their Uses in the Body.

Chart 2.—Composition of Food Materials: Nutrients, Refuse, and Fuel Value. (This is a colored lithographic bar diagram.)

Chart 3.—Pecuniary Economy of Food. Amounts of Nutrients Obtained in Different Materials for 10 cents. (This is a colored lithographic bar diagram.)

Chart 4.—Dietaries and Dietary Standards—Quantities of Nutrients and Energy in Food per Man per Day. (This is a colored lithographic bar diagram.)

These charts are not for general distribution.

The Honey Bee: A Manual of Apiculture. By Frank Benton, M. S. Pp. 118, pls. 11, figs. 76. (Bulletin No. 1, new series, Division of Entomology.) Price 15 cents.

“This treatise is designed to make the practical management of an apiary plain to those whose acquaintance with the subject is limited, and to direct such as may find in it a pleasant and profitable occupation into a system of management which may be followed on an extensive scale with the certainty of fair remuneration for the labor and capital required.” The chapter headings embrace such subjects as: Classification of the bee; kinds of bees composing a colony; bee products and descriptions of combs; development of brood; quieting and manipulating bees; establishing an apiary; hives and implements; bee pasturage; spring manipulation; securing surplus honey and wax; rearing and introducing queens; increase of colonies; wintering bees; diseases and enemies of bees; brief list of books and journals relating to apiculture.

[A revised edition, and ordered printed by Congress. Fifteen thousand copies are to be distributed by Members and Senators.]



Zinc in Evaporated Apples. By Harvey W. Wiley, Chief of the Division of Chemistry. Pp. 38. (Bulletin No. 48, Division of Chemistry.) Price 5 cents.

"In the last few years many objections have been made in foreign countries to the use of evaporated fruits on account of their contamination with zinc. By reason of the complaints made by exporters and consular agents, the Secretary of Agriculture authorized an investigation to be made for the purpose of determining whether evaporated apples contain zinc, and if so, whether in quantities prejudicial to health."

Proceedings of the Twelfth Annual Convention of the Association of Official Agricultural Chemists, held at Washington, D. C., September 5, 6, and 7, 1895. Edited by Harvey W. Wiley, Secretary of the Association. Pp. 172, figs. 2. (Bulletin No. 47, Division of Chemistry.) Price 10 cents.

Forest Fire Legislation in the United States. By B. E. Fernow, Chief of the Division of Forestry. Pp. 8. (Circular No. 13, Division of Forestry.)

The Minnesota law for the preservation of forests and for the prevention and suppression of forest and prairie fires is given in full, and mention is made of the provisions of the laws in force in Wisconsin, Maine, Colorado, New York, Pennsylvania, and New Hampshire. A table summarizes the forest fire laws of all the States.

Southern Pine—Mechanical and Physical Properties. Pp. 12, figs. 4. [Quarto.] (Circular No. 12, Division of Forestry.) Price 5 cents.

This circular gives the results of the timber investigations carried on by the Division of Forestry in the laboratory at St. Louis, under Prof. J. B. Johnson, and in the laboratory at Washington, by Mr. Filibert Roth, and is published in advance of a fuller account based upon 20,000 tests.

List of State Dairy Commissioners and Associations of Dairymen in the United States and Canada for 1896. Pp. 6. (Circular No. 10, Bureau of Animal Industry.)

Check List of the Animal Parasites of Chickens (*Gallus domesticus*). By Albert Hassall, Zoological Laboratory, Bureau of Animal Industry. Pp. 7. (Circular No. 9, Bureau of Animal Industry.) Price 5 cents.

Crop Report for March, 1896, No. 135. Pp. 16.

Synopsis of Crop Report for April, 1896, No. 136. Pp. 4.

Crop Report for April, 1896, No. 136, Pp. 7.

Statement in Regard to Award of Seed Contract. Pp. 8. (Circular from Office of Secretary.)

"The Department of Agriculture supplies this statement in connection with the sensational charges made in certain newspapers in regard to the recent letting of the contract for vegetable and flower seeds under the joint resolution of Congress directing the Secretary of Agriculture to purchase 'valuable seed for the year 1896, as has been done in preceding years.'"

Climate and Health, Vol. II, No. 1. A Summary of Statistics for the Five Weeks Ended February 1, 1896. Pp. 35, charts 14. [Quarto.] Price 10 cents.

"Climate and Health is intended to be a repertory for statistical and other information appertaining to climatology and its relations to hygiene, and from which persons interested in the subject of the influence of climate and weather upon health may obtain data for making comparisons to determine the therapeutic and hygienic merits of different climates, for the prosecution of original researches, and whatever other uses and purposes to which they may find the information applicable."



## Charts of the Weather Bureau. (Size 19 by 24 inches.)

Climate and Crop Bulletin (series of 1896), reporting temperature and rain-falls with special reference to their effect on crops. (No. 3, for the month of March, and Nos. 4, 5, 6, and 7 for the weeks ending April 6, 13, 20, and 27, 1896.)

Daily Weather Map, showing weather conditions throughout the United States and giving forecasts of probable changes.

Injury from Frost and Methods of Protection. By W. H. Hammon, Forecast Official. Pp. 12. (Circular of the Weather Bureau.) Price 10 cents.

Description of Cloud Forms. (Chart of the Weather Bureau, 17 by 25 inches, with 11 illustrations.)

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# United States Department of Agriculture,

## DIVISION OF PUBLICATIONS.

Washington, D. C., May 30, 1896.

### MONTHLY LIST OF PUBLICATIONS.

[May, 1896.]

(See appended notes regarding Department publications.)

Index to the Annual Reports of the U. S. Department of Agriculture for the Years 1837-1893, inclusive. Pp. 252. (Division of Publications.) Price 15 cents.

The Principal Diseases of Citrous Fruits in Florida. By Walter T. Swingle and Herbert J. Webber. Pp. 42, pls. 8 (3 colored), figs. 6. (Bulletin No. 8, Division of Vegetable Physiology and Pathology.) Price 10 cents.

Accessions to the Department Library, January-March, 1896. Pp. 15. Quarto. Price 5 cents.

Crop Report No. 137—May, 1896. Pp. 8. (Report of the Statistician.)

Synopsis of Crop Report No. 137—May, 1896. Pp. 4. (Report of the Statistician)

Vivisection in the District of Columbia. By Chas. W. Dabney, jr., Acting Secretary. Pp. 4. (Circular from Office of Secretary.)

How to Select Good Cheese. By Henry E. Alvord, Chief of the Dairy Division. Pp. 11. (Circular No. 11, Bureau of Animal Industry.)

Check List of Animal Parasites of Turkeys (*Meleagris gallopavo mexicana*). Pp. 4. (Circular No. 12, Bureau of Animal Industry.) Price 5 cents.

This circular is purely technical.

Kafir Corn: Characteristics, Culture, and Uses. By C. C. Georgeson, Professor of Agriculture in Kansas State Agricultural College. Pp. 12, fig. 1. (Farmers' Bulletin No. 37, Office of Experiment Stations.)

List of Farmers' Bulletins Available for Distribution. Pp. 4. (Circular from Office of the Secretary.)

List of Circulars of Information. Pp. 6. (Circular from Division of Publications.)

Standards of the Purity and Vitality of Agricultural Seeds. By Gilbert H. Hicks, Assistant, Division of Botany. Pp. 4. (Circular No. 6, Division of Botany.)

The Mexican Cotton-boll Weevil. Pp. 8, figs. 5. (Circular No. 14, Division of Entomology.) (Spanish edition.)



Some Mexican and Japanese Injurious Insects Liable to be Introduced into the United States. Pp. 56, figs. 6. (Bulletin No. 4, technical series, Division of Entomology.) Price 5 cents.

This bulletin is purely technical.

Methods of the Mechanical Analysis of Soils and of the Determination of the Amount of Moisture in Soils in the Field. Pp. 24, fig. 1. (Bulletin No. 4, Division of Agricultural Soils.) Price 5 cents.

Traffic of the Country Roads. Pp. 4. (Circular No. 19, Office of Road Inquiry.)

Comments on Systems of Maintaining Country Roads. Pp. 7. (Circular No. 20, Office of Road Inquiry.)

Is Protection against Forest Fires Practicable? By B. E. Fernow, Chief of the Division of Forestry. Pp. 4. (Circular No. 14, Division of Forestry.)

Experiment Station Record, Vol. VII, No. 6. Pp. vi, 435-534. Price 5 cents.

Experiment Station Record, Vol. VII, No. 7, Pp. v, 535-632. Price 5 cents.

The Chemical Composition of American Food Materials. By W. O. Atwater, Ph. D., and Chas. D. Woods, B. S. Pp. 47, figs. 4. (Bulletin No. 28, Office of Experiment Stations.) Price 5 cents.

Dietary Studies at the University of Tennessee in 1895. By Chas. E. Wait, Ph. D., F. C. S., Professor of Chemistry, University of Tennessee. With comments by W. O. Atwater and Chas. D. Woods. Pp. 45. (Bulletin No. 29, Office of Experiment Stations.) Price 5 cents.

Onion Culture. By R. L. Watts, B. Agr., Instructor in Horticulture at the University of Tennessee and Horticulturist of the Tennessee Agricultural Experiment Station. Pp. 31, figs. 3. (Farmers' Bulletin No. 39, Office of Experiment Stations.)

Spraying for Fruit Diseases. By B. T. Galloway, Chief of Division of Vegetable Physiology and Pathology. Pp. 12, figs. 6. (Farmers' Bulletin No. 38, Division of Vegetable Physiology and Pathology.)

Departures from Normal Temperature and Rainfall, with Crop Yields in Nebraska. By Maj. H. H. C. Dunwoody, assigned to duty as Acting Assistant Chief. Pp. 30, charts 10. Quarto. (Bulletin from the Weather Bureau.) Price 25 cents.

Monthly Weather Review. December, 1895. Vol. XXIII, No. 12. Pp. 449-487, charts 7. Price 10 cents.

The Work of the Weather Bureau in Connection with the Rivers of the United States. Pp. 106, diags. 3. (Bulletin No. 17, Weather Bureau.) Price 10 cents.

This bulletin embodies river reports and flood warnings; river districts and stations; the system of flood warnings; tables of distances, river tributaries, and rate of flood movement, and notes on river and floods from various cities.

Report of the Fourth Annual Meeting of the American Association of State Weather Services, Cooperating with the Weather Bureau, U. S. Department of Agriculture, held at Indianapolis, Ind., October 16 and 17, 1895. Pp. 55. (Bulletin No. 18, Weather Bureau.) Price 5 cents.



Proceedings of the Ninth Annual Convention of the Association of American Agricultural Colleges and Experiment Stations, held at Denver, Colo., July 16-18, 1895. Edited by A. C. True and H. H. Goodell. Pp. 100. (Bulletin No. 30, Office of Experiment Stations.) Price 10 cents.

Charts of the Weather Bureau. (Size 19 by 24 inches.)

Climate and Crop Bulletin (series of 1896), reporting temperature and rainfalls with special reference to their effect on crops. (Nos. 8, 9, 10, 11, for the weeks ending May 5, 12, 19, 26, 1896.)

Daily Weather Map, showing weather conditions throughout the United States and giving forecasts of probable changes.

Storm Bulletin No. 4, 1896. Tornadoes of the Central Mississippi Valley, May 27, 1896.

### NOTES REGARDING DEPARTMENT PUBLICATIONS.

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# United States Department of Agriculture,

## DIVISION OF PUBLICATIONS,

*Washington, D. C., June 30, 1896.*

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### MONTHLY LIST OF PUBLICATIONS.

[June, 1896.]

(See appended notes regarding Department publications.)

Yearbook of the United States Department of Agriculture for 1895. Pp. 656, pls. 10, figs. 134. Price 55 cents.

The Yearbook contains (1) a general report of the operations of the Department; (2) a series of papers prepared in the different bureaus and divisions of the Department, or by experts specially engaged, and designed to present in popular form results of investigations in agricultural science or new developments in farm practice; (3) an appendix of 104 pages containing miscellaneous information and agricultural statistics compiled down to the latest available date, relative to the production, values, per capita consumption, exportation and importation of farm products; (4) an index of 30 pages. Of the large edition of 500,000 copies 110,000 copies are allotted to the Senators and 360,000 to the Members of the House of Representatives—or over 1,000 copies for each member of the two Houses of Congress, the comparatively small remainder being turned over to the Department of Agriculture for its exchanges and correspondents.

Contributions from the U. S. National Herbarium, Vol. III, No. 8. Flora of the Black Hills of South Dakota. By P. A. Rydberg. Pp. v. 463-536, iv, pls. 17-20. Price 10 cents.

Revision of the Nematinae of North America, a Subfamily of Leaf-feeding Hymenoptera of the Family Tenthredinidae. By C. L. Marlatt, First Assistant Entomologist. Pp. 135, pl. 1, figs. 10. (Technical Bulletin No. 3, Division of Entomology.) Price 10 cents.

Experiment Station Record, Vol. VII, No. 8. Pp. v, 633-722. Price 5 cents.

Crop Report for June, 1896. No. 138. Pp. 4.

Permanent Elements in Experiment Station Work. Pp. 4. (Circular No. 30, Office of Experiment Stations.)

An address by Dr. A. C. True, Director of the Office of Experiment Stations, at the ninth annual convention of the Association of American Agricultural Colleges and Experiment Stations, held at Denver, Colo., July 16-18, 1895, and reprinted from Bulletin No. 30, Office of Experiment Stations.

Progress of Southern Agriculture. Pp. 12. (Circular No. 3, Office of the Secretary.)

Address delivered by Dr. Chas. W. Dabney, jr., Assistant Secretary of Agriculture, before the Farmers' Institute held under the auspices of the Virginia State Board of Agriculture, at Ashland, Va., June 2, 1896.



Tumbling Mustard (*Sisymbrium altissimum*). By Lyster H. Dewey, Assistant Botanist. Pp. 8, figs. 3. (Circular No. 7, Division of Botany.)  
Origin and introduction into America—Names and description—Related weeds—Methods of dissemination—Points of danger—Warning to South Dakota timothy seed growers—Methods of eradication—Complete eradication possible.

Check List of the Animal Parasites of Ducks. By Albert Hassall, Zoological Laboratory, Bureau of Animal Industry. Pp. 4. (Circular No. 13, Bureau of Animal Industry.)

This circular is purely technical.

North American Fauna No. 11. Synopsis of the Weasels of North America. By C. Hart Merriam. Pp. 44, pls. 6, figs. 16. Price 10 cents.

A Manual of Instructions to Crop Correspondents. By Henry A. Robinson, Statistician. New Edition, Revised and Corrected. Pp. 23.

For distribution principally to correspondents of the Division of Statistics.

Monthly Weather Review—Annual Summary. Vol. XXIII, No. 13. Pp. vii, 489-501, charts 5. Price 10 cents.

Monthly Weather Review—January, 1896. Vol. XXIV, No. 1. Pp. 38, charts 7. Price 10 cents.

Climate and Health. Vol. II, No. 2. A Summary of Statistics for the Four Weeks Ended February 29, 1896. Pp. 37-64, charts 12. Quarto. Price 10 cents.

Studies of Weather Types and Storms. Part II. Pp. 26, charts 39. Quarto. Price 25 cents.

Charts of the Weather Bureau. (Size 19 by 24 inches.)

Climate and Crop Bulletin (series of 1896), reporting temperature and rainfalls with special reference to their effect on crops. (Nos. 12, 13, 14, 15, 16, for the weeks ending June 1, 8, 15, 22, and 29.)

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United States Department of Agriculture,  
DIVISION OF PUBLICATIONS.

*Washington, D. C., July 31, 1896.*

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**MONTHLY LIST OF PUBLICATIONS.**

**[July, 1896.]**

(See appended notes regarding Department publications.)

Fowls: Care and Feeding. By G. C. Watson, B. Agr., M. S., Professor of Agriculture in Pennsylvania State College, and Agriculturist of the Pennsylvania Agricultural Experiment Station. Pp. 24, figs. 4. (Farmers' Bulletin No. 41, Office of Experiment Stations.)

Bird Day in the Schools. By T. S. Palmer, Acting Chief of Division. Pp. 4. (Circular No. 17, Division of Biological Survey.)

History of Bird Day—Object of Bird Day—Value of Bird Day.

The Civil Service in the Department of Agriculture. Pp. 4. (Circular No. 5, Office of the Secretary.)

This circular contains a letter to the President of the United States Civil Service Commission by Dr. Chas. W. Dabney, jr., Acting Secretary, suggesting a departure from present methods of examination for scientists for the Department, and a reply thereto by John R. Procter, president of the Commission. A page is given to the present status of the Department employees.

Crop Report No. 139, for July, 1896. Pp. 8.

The World's Markets for American Products—Norway. Pp. 68, map. (Bulletin No. 7, Section of Foreign Markets.) Price 5 cents.

Crimson Clover Hair Balls. By Frederick V. Coville, Botanist. Pp. 4, figs. 3. (Circular No. 8, Division of Botany.)

This circular mentions several cases where crimson clover hair balls have been found in the stomach of horses, and shows how they are formed and how to prevent them.

Bordeaux Mixture: Its Chemistry, Physical Properties, and Toxic Effects on Fungi and Algæ. By Walter T. Swingle, Assistant, Division of Vegetable Physiology and Pathology. Pp. 37. (Bulletin No. 9, Division of Vegetable Physiology and Pathology.) Price 5 cents.

This bulletin is intended not only to record the results of investigations, but also to suggest lines of work that might profitably be taken up by experiment stations and other similar institutions. While technical in its nature the bulletin contains many suggestions of practical value.



North American Fauna No. 12. Genera and Subgenera of Voles and Lemmings. By Gerrit S. Miller, jr. Pp. 84, figs. 12, pls. 3. (Division of Biological Survey.) Price 10 cents.

"Hitherto no attempt has been made to compare in detail the voles and lemmings of the Old and New Worlds."

Check List of the Animal Parasites of Geese (*Anser anser domesticus*). By Albert Hassall, Zoological Laboratory. Pp. 5. (Circular No. 14, Bureau of Animal Industry.)

This circular is purely technical.

Tapeworms of Poultry. Report upon the Present Knowledge of Tapeworms of Poultry. By Ch. Wardell Stiles, A. M., Ph. D.—Bibliography of the Tapeworms of Poultry. By Albert Hassall, M. R. C. V. S. Pp. 88, pls. 21. (Bulletin No. 12, Bureau of Animal Industry.) Price 15 cents.

This bulletin is purely technical. "Our knowledge of the parasites of poultry is in a very unsatisfactory condition, and the contributions to it are so scattered through the literature of the world that they are not available to the greater part of those engaged in the investigation of this and allied subjects. The work of Drs. Stiles and Hassall is well done, and will not only prove of immediate value to poultrymen, but it must long stand as a foundation for other scientific investigations."

Methods of Constructing Macadamized Roads. Pp. 12. (Circular No. 21, Office of Road Inquiry.)

Texture of Some Important Soil Formations. Pp. 23, pls. 35. Bulletin No. 5, Division of Soils.) Price 15 cents.

Shows the relation of soils to crop production and the texture of some typical soils of the Atlantic Coast States, the West, the truck lands of the Atlantic Coast, and of some important types of tobacco soils.

Prune Culture in the Pacific Northwest. By E. R. Lake. Pp. 7, figs. 3. (Circular No. 2, Division of Pomology.)

Reprint of an article from the Report of the Pomologist for 1894.

Notes on Peach Culture. By J. H. Hale. Pp. 10, figs. 4. (Circular No. 3, Division of Pomology.)

Reprint of an article from the Report of the Pomologist for 1894.

Monthly Weather Review—March, 1896. Vol. XXIV, No. 3. Pp. 69–103, charts 9. Price 10 cents.

Climate and Health, Vol. II, No. 3. A Summary of Statistics for the Four Weeks ended March 28, 1896. Pp. 65–92, charts 12. (Weather Bureau.) Price 10 cents.

Charts of the Weather Bureau. (Size 19 by 24 inches.)

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# United States Department of Agriculture,

## DIVISION OF PUBLICATIONS.

Washington, D. C., August 31, 1896.

### MONTHLY LIST OF PUBLICATIONS.

[August, 1896.]

(See appended notes regarding Department publications.)

Railway Charges for the Transportation of Wool. July, 1896. Pp. 30.  
(Bulletin No. 10, Division of Statistics.) Price 5 cents.

Acreage, Production, and Value of Principal Farm Crops in the United States, 1866 to 1895, with other Data as to Cotton and Wool. By Henry A. Robinson, Statistician. Pp. 8. (Circular No. 1, Division of Statistics.)

The Wheat Crop of the World. Pp. 2. (Circular No. 2, Division of Statistics.)

Crop Report for August, 1896. Pp. 8. (Report No. 140, Division of Statistics.)

Experiment Station Record, Vol. VII, No. 9. Pp. v, 723-814. Price 5 cents.

Dietary Studies at the University of Missouri in 1895, and Data Relating to Bread and Meat Consumption in Missouri. By H. B. Gibson, S. Calvert, and D. W. May, University of Missouri. With Comments by W. O. Atwater and Chas. D. Woods. Pp. 24. (Bulletin No. 31, Office of Experiment Stations.) Price 5 cents.

Dietary Studies at Purdue University, Lafayette, Ind., in 1895. By Winthrop E. Stone, Ph. D., Professor of Chemistry, Purdue University. With Comments by W. O. Atwater and Chas. D. Woods. Pp. 28. (Bulletin No. 32, Office of Experiment Stations.) Price 5 cents.

Contributions from the U. S. National Herbarium, Vol. III, No. 9. Pp. v, 537-612, vii, pls. 21-28. Price 10 cents.

I. Flora of Southwestern Kansas. Report on a collection of plants made by C. H. Thompson in 1893. By A. S. Hitchcock.

II. *Crepis occidentalis* and its allies. By Frederick V. Coville.

III. Plants from the Big Horn Mountains of Wyoming. By J. N. Rose.

IV. *Leibergia*, a new genus of Umbelliferae from the Columbia River region. By John M. Coulter and J. N. Rose.

V. *Roseanthus*, a new genus of Cucurbitaceae from Acapulco, Mexico.

Fodder and Forage Plants, Exclusive of the Grasses. By Jared G. Smith, Assistant Agrostologist. Pp. 58, figs. 56. (Bulletin No. 2, Division of Agrostology.) Price 5 cents.

The work is popular in its character, and is as free from technicalities as possible. The descriptions are brief, and the remarks under each species, while brief, include what has been regarded as most important, and afford such information as the farmer and others interested would be most likely to wish to know.

Copper Sulphate and Germination. Treatment of Seed with Copper Sulphate to Prevent the Attacks of Fungi. By Walter H. Evans, Ph. D. Pp. 24. (Bulletin No. 10, Division of Vegetable Physiology and Pathology.) Price 5 cents.

A compilation of experiments, with numerous references.

Legal Enactments for the Restriction of Plant Diseases. A compilation of the Laws of the United States and Canada. By Erwin F. Smith, Division of Vegetable Physiology and Pathology. Pp. 45. (Bulletin No. 11, Division of Vegetable Physiology and Pathology.) Price 5 cents.

Check List of the Animal Parasites of Pigeons (*Columba livia domestica*). By Albert Hassall, Zoological Laboratory, Bureau of Animal Industry. Pp. 4. (Circular No. 15, Bureau of Animal Industry.)

This circular is purely technical.

Tennessee Road Circular. Pp. 3. (Circular No. 22, Office of Road Inquiry.)

A letter by Mr. C. A. Locke, member from Tennessee of Advisory Committee of National Road Conference, urging the formation of organizations to promote good roads.

Money Value of Good Roads to Farmers. By W. C. Latta, Purdue University. Pp. 4. (Circular No. 23, Office of Road Inquiry.)

Nut Culture. By H. M. Engle, with note by S. B. Heiges, Pomologist. Pp. 4. (Circular No. 1, Division of Pomology.)

Accessions to the Department Library—April–June, 1896. (Bulletin No. 12, Library.)

Monthly Weather Review—April, 1896. Vol. XXIV, No. 4. Pp. 104–144, charts 9. Price 10 cents.

Monthly Weather Review—May, 1896. Vol. XXIV, No. 5. Pp. 145–192, charts 12. Price 10 cents.

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## DIVISION OF PUBLICATIONS,

Washington, D. C., September 30, 1896.

### MONTHLY LIST OF PUBLICATIONS.

[September, 1896.]

(See appended notes regarding Department publications.)

**Tuberculosis Investigations.** The Growth of the Tuberculosis Bacillus upon Acid Media. By E. A. de Schweinitz and Marion Dorset.—Further Experiments with an Attenuated Tuberculosis Bacillus. By E. A. de Schweinitz and E. C. Schroeder.—The Effect of Tuberculin Injections Upon the Milk of Healthy and Diseased Cows. By E. A. de Schweinitz. Prepared under the direction of Dr. D. E. Salmon, Chief of the Bureau of Animal Industry. Pp. 27, pls. 2, figs. 7, (Bulletin No. 13, Bureau of Animal Industry.) Price 10 cents.

**Facts About Milk.** By R. A. Pearson, B. S., Assistant Chief, Dairy Division, Bureau of Animal Industry. Pp. 29, figs. 8. (Farmers' Bulletin No. 42, Bureau of Animal Industry.)

**Sewage Disposal on the Farm, and the Protection of Drinking Water.** By Theobald Smith, M. D., Professor in Harvard University, Pathologist to the Massachusetts State Board of Health, etc. Pp. 20, figs. 8. (Farmers' Bulletin No. 43.)

**Commercial Fertilizers: Composition and Use.** By Edward B. Voorhees, M. A., Director of the New Jersey Agricultural Experiment Stations and Professor of Agriculture in Rutgers College. Pp. 24. (Farmers' Bulletin No. 44, Office of Experiment Stations.)

**The Larger Corn Stalk-borer (*Diatræa saccharalis* Fab.).** By L. O. Howard, Entomologist. Pp. 3, figs. 3. (Circular No. 16, Division of Entomology.)

This circular treats of the general appearance and method of work of this stalk-borer, its distribution, natural history and habits, amount of damage it does, and the remedies.

**Experiment Station Record, Vol. VII, No. 10.** Pp. vi, 815-901. Price 5 cents.

**Numbers and Values of Farm Animals in the United States, and Animal Products. 1880 to 1886.** Pp. 63. (Bulletin No. 11, Division of Statistics.) Price 5 cents.

**Crop Report for September, 1896.** By Henry A. Robinson, Statistician. Pp. 7.

Traction Tests. By Samuel T. Neely, Assistant Engineer, Office of Road Inquiry. Pp. 22, pls. 2, figs. 7. (Bulletin No. 20, Office of Road Inquiry.) Price 10 cents.

Food and Diet. By Prof. W. O. Atwater. (Charts I-IV, size 26x40 inches, Office of Experiment Stations.) Price per set—tinned \$1.00, not tinned 75 cents. Charts not sold separately.

Chart I.—Nutrients of Food and Their Uses in the Body. This shows in tabular form the composition of food materials as purchased, with examples of the different nutrients and functions of each. The definition of food is also given.

Chart II.—Composition of Food Materials. This shows by means of colored lines the percentage composition and fuel value of a number of common food materials both animal and vegetable.

Chart III.—Pecuniary Economy of Food. This gives the amount of a number of food materials which may be purchased for 10 cents, and shows by means of colored lines the percentage composition and fuel value of each.

Chart IV.—Dietaries and Dietary Standards. This shows by means of colored lines the nutrients and fuel value of the dietaries consumed by people of various conditions in the United States and other countries. The dietary standards for man at little work, at moderate work, and at severe work are also given.

Monthly Weather Review—June, 1896. Vol. XXIV, No. 6. Pp. 191-228, charts 6. Price 10 cents.

Charts of the Weather Bureau. (Size 19 by 24 inches.)

Climate and Crop Bulletin (series of 1896), reporting temperature and rain-falls, with special reference to their effect on crops. (Nos. 25, 26, 27, and 28, for the weeks ending August 31 and September 7, 14, and 21.)

Daily Weather Map, showing weather conditions throughout the United States and giving forecasts of probable changes.



## NOTES REGARDING DEPARTMENT PUBLICATIONS.

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For the maps and bulletins of the Weather Bureau requests and remittances should be directed to the Chief of that Bureau. For publications mentioned in the Monthly List preceding **to which a price is attached** (with the exception of those issued by the Weather Bureau) application must be made to the Superintendent of Documents, Union Building, Washington, D. C., accompanied by the price thereof as fixed by him in accordance with the provisions of sections 61 and 67 of the act providing for the public printing and binding, and the distribution of public documents, approved January 12, 1895, and all remittances should be made to him and **not** to the Department of Agriculture; such remittances should be made by postal money order and not by private check or postage stamps. Applications for all other publications should be addressed to the Secretary of Agriculture, Washington, D. C.

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Please advise the Department of any change of address.





# United States Department of Agriculture,

## DIVISION OF PUBLICATIONS,

*Washington, D. C., October 31, 1896.*

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### MONTHLY LIST OF PUBLICATIONS.

[October, 1896.]

(See appended notes regarding Department publications.)

Statistics of the Dairy. Compiled from the United States Census for 1890, and from other reliable sources, with explanatory notes. By Henry E. Alvord, C. E., Chief of the Dairy Division, under the direction of Dr. D. E. Salmon, Chief of the Bureau of Animal Industry. Pp. 53, diagrams 5, map 1. (Bulletin No. 11 (Dairy No. 1), Bureau of Animal Industry.) Price 5 cents. (Reprint.)

Useful and Ornamental Grasses. By F. Lamson-Scribner, Agrostologist. Pp. 119, figs. 89. (Bulletin No. 3, Division of Agrostology.) Price 10 cents.

Imports and Exports for 1893-96. Pp. 9. (Circular No. 9, Section of Foreign Markets.)

The Timber Pines of the Southern United States, by Charles Mohr, Ph. D. Together with A Discussion of the Structure of Their Wood, by Filibert Roth. Prepared under the direction of B. E. Fernow, Chief of the Division of Forestry. Pp. 160, pls. 27, figs. 18. (Bulletin No. 13, Division of Forestry.) Price 35 cents.

Experiment Station Record, Vol. VII, No. 11. Pp. vi, 903-996. Price 5 cents per copy; beginning with Vol. VIII, No. 1, the price will be 10 cents per copy.

NOTE.—For the convenience of those who desire to receive this publication regularly the Superintendent of Documents has decided to fix the price of the volume (12 numbers), beginning with Vol. VIII, at \$1, payable in advance.

Crop Report for October, 1896. By Henry A. Robinson, Statistician. Pp. 7.

Dairying in California. By Prof. E. J. Wickson, M. A., University of California, under the direction of Dr. D. E. Salmon, Chief of the Bureau of Animal Industry. Pp. 31, map 1. (Bulletin No. 14 (Dairy No. 5), Bureau of Animal Industry.) Price 5 cents.

Course of Wheat Production and Exportation in the United States, Canada, Argentina, Uruguay, Russia, and British India from 1880 to 1896. Pp. 8. (Circular No. 10, Section of Foreign Markets.)

The Principal Household Insects of the United States. By L. O. Howard and C. L. Marlatt, with a chapter on Insects Affecting Dry Vegetable Foods, by F. H. Chittenden. Pp. 130, figs. 64. (Bulletin No. 4, new series, Division of Entomology.) Price 10 cents.

The Lessons of Erosion Due to Forest Destruction. (Chart, size  $30\frac{1}{2}$  by  $48\frac{1}{2}$  inches, Division of Forestry.) Price \$1.

Comprises three colored representations: (1) *How the Farm Is Lost*—By the denuding of hilltops; the excessive thinning of wooded hillsides; the burning of litter, underbrush, and young growth; the compacting of the soil by the trampling of animals induces rapid surface drainage. The surface water rushing unimpeded over bare slopes and the compacted ground washes away the soil, cuts gullies in the fields on hillsides, spreading silt, sand, and gravel over the fields and meadows below. (2) *How the Farm Is Regained*—Put hilltops and steep slopes under forest; check rush of water by filling gullies with brush and stonework, by terracing, contour plowing, and ditching, changing surface drainage into underground drainage; renew organic matter in the soil by green manuring and mulching and thorough cultivation. (3) *How the Farm Is Retained*—Preserve the forest cover on hilltops and on steep or rocky places, cutting wood systematically and judiciously, so that it will reproduce and replant where natural reproduction fails. A fringe of wood should line the river banks, and long slopes should be broken by small groves or timber belts. Use every foot of ground for the purpose to which it is best adapted. Divide the farm into field, pasture, woodland, devoting to pasture gentle slopes where soil is too thin for field crops; supply roads with a view to convenience and grade; fence stock into pasture—not out of the fields; repair at once any damage caused by water.

Monthly Weather Review—July, 1896. Vol. XXIV, No. 7. Pp. 229–280, charts 8. Price 10 cents.

Charts of the Weather Bureau. (Size 19 by 24 inches.)

Climate and Crop Bulletin (series of 1896), reporting temperature and rainfall, with special reference to their effect on crops. (No. 29, for the week ending September 28.)

Daily Weather Map, showing weather conditions throughout the United States and giving forecasts of probable changes.

Hurricane of September 29 and 30, 1896. (Storm Bulletin No. 5. 1896.)



# United States Department of Agriculture,

## DIVISION OF PUBLICATIONS,

*Washington, D. C., Sept. 19, 1896.*

### NOTES REGARDING DEPARTMENT PUBLICATIONS.

The serial, scientific, and technical publications of the U. S. Department of Agriculture **are not for general distribution.** All copies not required for official use are by law \* turned over to the Superintendent of Documents, who is empowered to sell them at cost. All applications for such publications should therefore be made to—

*The Superintendent of Documents,*

*Union Building,*

*Washington, D. C.*

He is not, however, allowed to sell more than one copy of any public document to the same person, and remittance should always be made to him and **not** to this Department. **Do not send checks or stamps.**

**Farmers' Bulletins** are for **free distribution**, being issued under a special provision in the act making appropriation for the Department of Agriculture. Two-thirds of all copies printed are for distribution by Senators, Representatives, and Delegates in Congress, and the remainder are for the use of the Department.

**Circulars of information** are also of a popular character and are intended for **free circulation.** Applications therefor, as well as for Farmers' Bulletins, should be made to the Secretary of Agriculture, Washington, D. C.

The **Yearbook** of the Department of Agriculture is published for free distribution through Senators, Representatives, and Delegates in Congress. The Department's small quota is only sufficient to supply its regular correspondents.

The Department has no list to whom all publications are sent. The Monthly List of Publications issued on the first of each month will be mailed to all who apply for it. In it a brief synopsis is given of each publication; also the price as fixed by the Superintendent of Documents if for sale by him.

NOTE.—Applications for publications of the Weather Bureau should be made to that Bureau, remitting the price where a price is given.

GEO. WM. HILL,

*Chief of Division.*

Approved:

CHAS W. DABNEY, jr.,

*Acting Secretary.*

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# United States Department of Agriculture,

## DIVISION OF PUBLICATIONS,

*Washington, D. C., November 30, 1896.*

### MONTHLY LIST OF PUBLICATIONS.

[November, 1896.]

(See appended notes regarding Department publications.)

The Peach-Tree Borer. By C. L. Marlatt, Assistant Entomologist. Pp. 4, fig. 1. (Circular No. 17, second series, Division of Entomology.)

Popular description of the appearance and method of work, origin and distribution, and natural history and habits of this enemy of the orchardist, together with suggestions of preventives and remedies.

Insects Affecting Cereals and Other Dry Vegetable Foods. By F. H. Chittenden, Assistant Entomologist. Pp. 112-130, figs. 52-64. (Separate, from The Principal Household Insects of the United States, Bulletin No. 4, Division of Entomology.)

The list includes the flour beetles, meal-worms, meal moths, grain beetles, the drug-store beetle and its allies, and species of occasional occurrence in vegetable stores, together with suggestions as to remedies.

Report of the International Meteorological Congress held at Chicago, Ill., August 21-24, 1893, under the auspices of the Congress Auxiliary of the World's Columbian Exposition. Bulletin 11, Part III, Weather Bureau. Edited by Oliver L. Fassig, Secretary. Pp. xix-xxi, 585-772, Pls. XXVI-XLIII, fig 1. Price 20 cents.

Sections VII and VIII, comprising climatology and instruments and methods of investigation, and including twenty-two of the papers presented at the Congress.

Contributions from the United States National Herbarium. Vol. III, No. 8. Flora of the Black Hills of South Dakota. By P. A. Rydberg. Pp. iv, 463-536, iv, pls. 17-20. Price 10 cents. (Reprint.)

An account of the itinerary made, with a description of the geography and geology of the region, together with remarks on the temperature and precipitation, altitudes, and the several floral districts. There is added a catalogue of species.

The Renewing of Worn Out Native Prairie Pastures. By Thomas A. Williams, Assistant Agrostologist. Pp. 4, figs. 4. (Circular No. 4, Division of Agrostology.)

Suggestions are made as to removing weeds, stirring the soil when baked and packed, seeding thin spots with certain species of tame grasses, and the necessity of refraining from overstocking; and the effect of proper manuring and suitable care is pointed out.

Some Books on Agriculture and Agricultural Science—published 1893–1896. Compiled under the supervision of A. C. True, Ph. D., Director of Office of Experiment Stations and Bibliographer of Association of American Agricultural Colleges and Experiment Stations. Pp. 176. (Circular No. 31, Office of Experiment Stations.) Price 10 cents.

The result of an effort made in the Office of Experiment Stations to follow up such literature on agriculture and agricultural science published during the past three or four years as could be collated from data at command. The list does not include Government reports or experiment stations publications, reports of State boards or associations, diaries, calendars, or annuals.

Physiological Role of Water in Plants. By Edmond Gain, Professor of Agricultural Physiology and Chemistry, University of Nancy, France, Pp. 3–21, fig. 1. (Separate, from Experiment Station Record, Vol. VIII, No. 1.)

One of a series of articles on subjects relating to physiological botany which will appear in the Experiment Station Record, and which are intended to aid the agricultural experiment stations in organizing investigations, with a view to working out more completely the physiology of cultivated plants.

Experiment Station Record, Vol. VIII, No. 1. Pp. i–vi, 1–94. Price 10 cents.

Experiment Station Record, Vol. VIII, No. 2. Pp. i–vi, 95–176. Price 10 cents.

NOTE.—For the convenience of those who desire to receive this publication regularly the Superintendent of Documents has decided to fix the price of the volume (12 numbers), beginning with Vol. VIII, at \$1, payable in advance.

The World's Markets for American Products. Sweden. Pp. 92. (Bulletin No. 8, Section of Foreign Markets.) Price 5 cents.

A description of Sweden, her location, area, climate, and physical features; government, population, and migration; agriculture, manufacture, finance, tariff, and commerce, with special reference to exports and imports, and her trade with the United States.

Report of the Secretary of Agriculture, 1896. Pp. 51. (Preliminary.)

Among the subjects treated in this report are: Appropriations and Expenditures—Savings, Civil Service in the Department, Director of Scientific Work, Inadequacy of Salaries of Higher Officials, Inspection of Animals Intended for Food, The Cattle and Meat Trade of Great Britain, American Horses in England, American Apples in England, Economics for the Farmer, Work of the Weather Bureau, Agricultural Publications, Gratuitous Seed Distribution by the Government, Experiment Stations, Acknowledgments and Recommendations, The Condition of American Farmers, and Recent Annual Sales of Farm Products Abroad.

Accessions to the Department Library. July–September, 1896. Pp. 10. (Library Bulletin No. 13.)

Crop Report for November, 1896. By Henry A. Robinson, Statistician. Pp. 4.

Monthly Weather Review—August, 1896. Vol. XXIV, No. 8. Pp. 281–314, charts 4. Price 10 cents.

Monthly Weather Review—September, 1896. Vol. XXIV, No. 9. Pp. 315–358, charts 6. Price 10 cents.

Charts of the Weather Bureau. (Size 19 by 24 inches.)

Climate and Crop Bulletin (series of 1896), reporting temperature and rainfall, with special reference to their effect on crops. (No. 30, for the month of October, 1896.)

Daily Weather Map, showing weather conditions throughout the United States and giving forecasts of probable changes.



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# United States Department of Agriculture,

## DIVISION OF PUBLICATIONS,

WASHINGTON, D. C., *December 31, 1896.*

### MONTHLY LIST OF PUBLICATIONS.

[December, 1896.]

(See appended notes regarding Department publications.)

A report on the Culture of Hemp and Jute in the United States, with statements concerning the practice employed in foreign countries, the preparation of the fiber for market, and remarks on the machine question. By Chas. Richards Dodge, Special Agent. Pp. 43, Pls. III, figs. 4. (Report No. 8, Office of Fiber Investigations.) Price 10 cents.

This bulletin treats of the history of hemp and the range of its culture, statistics of production in the United States, soil selection, fertility and preparation, the necessity for good seed, harvesting and retting the crop, extracting the fiber, recent experiments in California and the South, and the uses to which the fiber is put. The second part of this bulletin gives a history of the industry, and discusses the different kinds of jute, the fiber and its uses, culture in India and the United States, the extraction of the fiber as practiced in each country, and the value of the crop.

Experiment Station Record, Vol. VIII, No. 3. Pp. i-vi, 177-268. Price 10 cents.

The Record contains numerous abstracts of the publications of the agricultural experiment stations and kindred institutions in this and other countries, articles and editorials on topics of special interest in agricultural science by American and foreign experts, and notes on the experiment stations.

NOTE.—For the convenience of those who desire to receive this publication regularly the Superintendent of Documents has decided to fix the price of the volume (12 numbers), beginning with Vol. VIII, at \$1, payable in advance.

The World's Markets for American Products. Belgium. Pp. 90. (Bulletin No. 6, Section of Foreign Markets.) Price 5 cents. (Reprint.)

A description of Belgium, her location, area, climate, and physical features; government, population, and migration; agriculture, manufacture, finance, tariff, and commerce, with special reference to exports and imports, and her trade with the United States; consular report, by consul at Ghent.

The Farmers' Interest in Finance. By Henry Farquhar, Assistant Statistician. Pp. 15, figs. 2. (Circular No. 3, Division of Statistics.)

This circular comprises an inquiry into (1) The source of the demand for a change of standard, wherein a comparison of population, education, wealth, industries, etc., based on the Eleventh Census, is made between the States which at the recent election declared for the free coinage of silver at 16 to 1 or for the present gold standard; and, (2) The purchasing power of agricultural products, showing the prices for the last thirty years of the three principal agricultural staples of the country as compared with gold and with silver.



Insects Affecting Cereals and Other Dry Vegetable Foods. By F. H. Chittenden, Assistant Entomologist. Pp. 112-130, figs. 52-64. (Separate, from The Principal Household Insects of the United States, Bulletin No. 4, Division of Entomology.)

The list includes the flour beetles, meal-worms, meal moths, grain beetles, the drug-store beetle and its allies, and species of occasional occurrence in vegetable stores, together with suggestions as to remedies.

Some Insects Injurious to Stored Grain. By F. H. Chittenden, Assistant Entomologist. Pp. 32, figs. 17. (Farmers' Bulletin No. 45, Division of Entomology.)

The more important of the upward of two score of species which occur commonly in granaries are treated; their life history, habits, and food are described, and they are presented as larva, or "worm," pupa, and adult, in eighteen figures, so that one unacquainted with entomology might easily recognize them.

The granary weevil and the rice weevil; the Angoumois grain moth and the wolf moth; the Mediterranean flour moth, the Indian-meal moth, and meal-snout moth; the confused flour beetle, the rust-red flour beetle, the slender-horned flour beetle, the broad-horned flour beetle, and the small-eyed flour beetle; the yellow meal-worm and dark meal-worm; and the saw-toothed grain beetle, the red or square-necked grain beetle, and the foreign grain beetle are, respectively, considered.

The parasitic and other natural enemies of these grain destroyers are noted, and under "Methods of control," both preventive and insecticidal measures are recommended and described.

Bibliography of the More Important Contributions to American Economic Entomology. By Samuel Henshaw. Part V—The More Important Writings of Government and State Entomologists and of Other Contributors to the Literature of American Economic Entomology. L-Z. Pp. 179.

This is the final part of the work authorized by the joint resolution of Congress dated July 6, 1882, and brings the bibliography down to June 30, 1888. Limited edition—not for general circulation.

Irrigation in Humid Climates. By F. H. King, Professor of Agricultural Physics, College of Agriculture, University of Wisconsin, and Physicist of the Wisconsin Agricultural Experiment Station. Pp. 27, figs. 4. (Farmers' Bulletin No. 46, Office of Experiment Stations.)

Professor King discusses: The advantages of an abundant supply of soil moisture—The rainfall of the growing season in the United States—Water only one of the necessary plant foods—The advantages and disadvantages of irrigation in humid climates—Extent of irrigation in the humid parts of Europe—The rainfall of Europe and the Eastern United States—The character and antiquity of European irrigation—Fertilizing value of irrigation waters—Lines along which irrigation should first develop—Lands best suited to irrigation in humid climates—Waters best suited to irrigation—Amount of water needed for irrigation—Methods of obtaining water for irrigation—The construction of reservoirs—The methods of applying irrigation.

In the Eastern United States there are certain lines along which labor and capital may be profitably invested in irrigation works, and of these, the kitchen garden, market gardening, small fruit culture, cranberry culture, and dairy husbandry are suggested by the author.

A Bacterial Disease of the Tomato, Eggplant, and Irish Potato (*Bacillus solanacearum* n. sp.). By Erwin F. Smith, Assistant Pathologist. Pp. 22, Pls. III. (Bulletin No. 12, Division of Vegetable Physiology and Pathology.) Price 10 cents.

A technical bulletin intended mainly to put on record the results of investigations concerning the life history of the organism causing the disease, and to set forth certain suggestions in the way of preventive measures that might be adopted.



**The Cotton Plant: Its History, Botany, Chemistry, Culture, Enemies, and Uses.** Prepared under the supervision of A. C. True, Ph. D., Director of the Office of Experiment Stations. With an introduction by Charles W. Dabney, Jr., Ph. D., Assistant Secretary of Agriculture. Pp. 433. Pls. IV, figs. 32. (Bulletin No. 33, Office of Experiment Stations.) Price 35 cents.

This bulletin includes summaries of information on different topics relating to the cotton plant considered in their agricultural bearings. The effort has been made to present such facts as would be useful to the students of our agriculture, to the investigators at the experiment stations, and to that increasing body of intelligent agriculturists who are interested in thoroughly acquainting themselves with the past and present condition of our agricultural industries, with a view to discovering means for their improvement. No attempt has been made to discuss the problems of cotton manufacture, the purpose being to confine the bulletin strictly within agricultural lines. Besides an introduction by Dr. Charles W. Dabney, Jr., the chapters of the bulletin are as follows:

History and general statistics of cotton, by R. B. Handy—Botany of cotton, by Walter H. Evans, Ph. D.—Chemistry of cotton, by J. B. McBryde and W. H. Beal—Climatology and soils, by Milton Whitney—The manuring of cotton, by H. C. White, Ph. D.—Cultivated varieties of cotton, by S. M. Tracy, M. S.—Culture of cotton, by Harry Hammond—Experiments in cotton culture by the Experiment Stations—Diseases of cotton, by George F. Atkinson, M. S.—The insects which affect the cotton plant in the United States, by L. O. Howard, Ph. D.—The handling and uses of cotton, by Harry Hammond—The feeding value of cotton-seed products, by B. W. Kilgore—Supplemental bibliography of cotton.

**Insects Affecting the Cotton Plant.** By L. O. Howard, Ph. D., Entomologist. Pp. 315–350, figs. 9–29, Pls. IV. (Separate, from The Cotton Plant, Bulletin No. 33 of the Office of Experiment Stations.)

**The Dairy Industry in Nebraska, South Dakota, and North Dakota.** By John H. Monrad, Special Agent. Pp. 21. (Bulletin No. 16, Bureau of Animal Industry.) Price 5 cents.

A report upon the dairy industry in the three States mentioned, in which the subject is considered under the following heads: Historical—Farm dairying and creamery patrons—Ladled butter—Creameries—Cheese factories—Extent and value of dairy interests—General remarks.

**Proceedings of the Eighth Annual Meeting of the Association of Economic Entomologists.** Pp. 100, figs. 5. (Bulletin No. 6, Division of Entomology.) Price 10 cents.

**CONTENTS:** Evolution of economic entomology—Some temperature effects on household insects—Three years' study of an outbreak of the chinch bug in Ohio—A new insecticide—Comparative tests with new and old arsenicals on foliage and with larvæ—On the futility of trunk and crown washing against the elm leaf-beetle—Insecticide soaps—Scale insects and their enemies in California—Notes on some of the insects of the year in the State of New York—Entomological notes from Maryland—Insects of the year in Ohio—Some notes on observations in West Virginia on farm, garden, and fruit insects—Notes on the entomological events of 1896 in Iowa—Is cooperation for the control of the San Jose scale practicable—The development of the Mediterranean flour moth—The grasshopper disease in Colorado—A simple device for the preparation of oil emulsions—Constitution of the Association of Economic Entomologists—List of members of the Association of Economic Entomologists.

**Peanuts: Culture and Uses.** By R. B. Handy, of the Office of Experiment Stations. Pp. 24, fig. 1. (Farmers' Bulletin No. 25, Office of Experiment Stations.) (Reprint.)

**CONTENTS:** Description and history—Composition—Varieties—Climate and soil suitable for peanut culture—Manuring and culture—Harvesting—Uses.



Charts of the Weather Bureau. (Size 19 by 24 inches.)

Snow and ice charts for Monday, December 7, 14, 21, and 28.

Climate and Crop Bulletin (series of 1896), reporting temperature and rainfall, with special reference to their effect on crops. (No. 31, for the month of November, 1896.)

Daily Weather Map, showing weather conditions throughout the United States and giving forecasts of probable changes.

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